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In the claims

Please amend and enter claims 1-9 as follows:

1. (Amended) A process for measuring analyte concentrations by affinity viscosimetry in a liquid known as sensitive to a shear rate applied to said liquid while circulating through an integrated dialysis chamber during a dialysis process, said dialysis process consisting in pumping of a shear sensitive liquid through a liquid conductor for streaming liquids via a flow resistance means with an integrated dialysis chamber and a measuring device for determining viscosity during a measuring process, whereby a maximum shear rate of the sensitive liquid indicated by said viscosimeter measuring device, which occurs at a measuring process, is at least twice the maximum shear rate of the sensitive liquid occurring in a dialysis chamber during the dialysis process.

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2. (Amended) A viscosimetric affinity sensor for carrying out a process according to claim 1, characterized by a liquid-conductor perfusable by the sensitive liquid and containing a dialysis chamber having a specified tubular lumen and dialysis membrane, a measuring chamber for determining flow resistance and a connected pumping device, whereby the flow resistance of the measuring chamber is laid out such that the maximum shear rate in the sensitive liquid characterized by a cohesion parameter during the measuring process is more than twice the maximum shear rate occurring in the sensitive liquid during the dialysis process.

3. (Amended) A viscosimetric affinity sensor according to claim 2, wherein the dialysis chamber is part of a needle-like body.

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4. (Twice Amended) A viscosimetric affinity sensor according to claim 2, wherein the liquid-conductor contains a pressure sensor.

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5. (Twice Amended) A viscosimetric affinity sensor according to claim 2, wherein the measuring chamber is situated within a needle-like body, the dialysis chamber is situated at its surface.

B2 6. (Twice Amended) A viscosimetric affinity sensor according to claim 2, wherein the sensitive liquid fills the dialysis chamber and the measuring chamber, and borders within the measuring chamber or within an additional chamber to a fluid of low viscosity which is not miscible with water, thereby manifesting a separation interface at a meniscus position between said fluid and said sensitive liquid.

B3 7. (Amended) A viscosimetric affinity sensor according to claim 6, wherein the additional chamber contains a set of one or more electrodes, by which a position of a meniscus between fluid and sensitive liquid can be followed.

B4 8. (Twice Amended) A viscosimetric affinity sensor according to claim 2, wherein the sensor contains a valve or a valve-like device for interruption of cohesion within the sensitive liquid by introduction of a gas or another fluid with low viscosity, whereby this valve or valve-like device is placed between the dialysis chamber and the measuring chamber or between the dialysis chamber and the pump.

9. (Twice Amended) A viscosimetric affinity sensor according to claim 2, wherein the lumen of the dialysis chamber consists of a space between a solid body and the dialysis membrane.

Please enter new claims 10-17 as follows:

B5 Cont. 10. (New) A viscosimetric sensor needle comprising a blind ending dialysis chamber comprising:

a) a hollow fiber;

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b) a measuring capillary positioned within said hollow fiber;

c) a capacitance measuring chamber having conducting zones in communication with said measuring capillary;

d) a capacitance measuring device in communication with said conducting zones; and

e) said capacitance measuring chamber and measuring capillary in communication with a pump.

11. (New) The viscosimetric sensor of claim 10, wherein said sensor fits into a cannula for insertion into a matrix.

12. (New) The viscosimetric sensor of claim 11, wherein said matrix is living tissue.

13. (New) The viscosimetric sensor of claim 10, wherein said sensor is attached within a needle body.

14. (New) The viscosimetric sensor of claim 10, wherein said pump is a gas pump.

15. (New) The viscosimetric sensor of claim 14, wherein said gas pump creates a pressure difference of from about -0.09 to about +0.3 Mpa.

16. (New) The viscosimetric sensor of claim 10, wherein said measuring capillary and measuring chamber is filled with a shear sensitive liquid.

17. (New) The viscosimetric sensor of claim 10, wherein said shear sensitive liquid is a mixture of dextran and concanavalin A.

In the specification

Please substitute the following for pages 2-16 of the specification:

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